

Claims

1. A visible light absorbing film formed by a visible light absorbing ink having been coated on one side or both sides of a substrate which has solar radiation reflecting properties and whose visible light reflectance is 10% or more, characterized in that:

the degree of reduction of visible light reflectance is 0.9 or less as defined by degree of reduction of visible light reflectance = [visible light reflectance (%) after coating of the ink]/[visible light reflectance (%) before coating of the ink]; and

the degree of reduction of solar radiation reflectance is 0.25 or more as defined by degree of reduction of solar radiation reflectance = [solar radiation reflectance (%) after coating of the ink]/[solar radiation reflectance (%) before coating of the ink].

2. The visible light absorbing film according to claim 1, wherein, as a haze value measured according to JIS K 7105, said substrate on which the visible light absorbing film has been formed has a haze value which has been made lower than the haze value before

formation of the visible light absorbing film, or the substrate on which the visible light absorbing film has been formed has a haze value which has been made higher than the haze value before formation of the
5 visible light absorbing film and its gain is +3% or less.

3. The visible light absorbing film according to claim 1 or 2, which has a value of 40 or less as
10 chromaticness $c^* = [(a^*)^2 + (b^*)^2]^{1/2}$ in the $L^*a^*b^*$ color system.

4. The visible light absorbing film according to claim 1, 2 or 3, wherein said substrate is any of a
15 film, a glass sheet and a transparent resin sheet, a film, a glass sheet and a transparent resin sheet on any of which a metallic thin film has been formed, and a composite member obtained by laminating the film, the glass sheet and the transparent resin sheet on any
20 of which a metallic thin film has been formed, to a different film, glass sheet or transparent resin sheet.

5. The visible light absorbing film according to claim 1, 2, 3 or 4, wherein said substrate is a
25 transparent film on the surface of which a metallic thin film of Al, Ag or Cu has been vacuum-deposited,

or a composite member formed of the transparent film on the surface of which the metallic thin film has been vacuum-deposited and a glass sheet.

5 6. A structural member having a visible light absorbing film, characterized in that a laminate formed by providing the visible light absorbing film according to claim 1, 2, 3, 4 or 5 on one side or both sides of the substrate is incorporated directly or via
10 an intervenient member or via a space.

7. A visible light absorbing ink which forms the visible light absorbing film according to claim 1, 2, 3, 4 or 5, characterized by containing at least one
15 fine particles of a compound oxide selected from the group consisting of Cu-Fe-Mn, Cu-Cr, Cu-Cr-Mn, Cu-Cr-Mn-Ni, Cu-Cr-Fe and Co-Cr-Fe, titanium black, titanium nitride, titanium oxynitride, a dark-colored azo pigment, a perylene black pigment, an aniline
20 black pigment and carbon black; said fine particles having an average dispersed-particle diameter of 300 nm or less in the ink.

8. The visible light absorbing ink according to
25 claim 7, which is characterized by containing as a binder component at least one inorganic high polymer,

organic high polymer or inorganic-organic composite
high polymer.